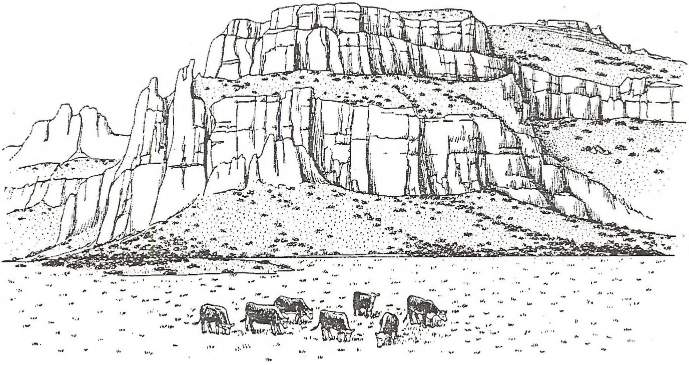
ARIZONA STRIP DISTRICT



Rangeland Program Summary
Update 1987

Prepared By

U.S. Department of the Interior

Bureau of Land Management

Arizona Strip District

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United States Department of the Interior

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Enclosed for your review is the Arizona Strip District's Rangeland Program Summary Update. The District has completed the grazing environmental impact statements, rangeland program summaries, and the decision process for both the resource areas. The Vermillion Resource Area completed its decision process 6 years ago, and the Shivwits Resource Area completed its decision process 5 years ago.

Both resource areas have accomplished much toward the goal of good public range management as proposed in the environmental impact statements and rangeland program summaries. In addition, some goals have changed in line with new range land management policies.

This summary will update you, as of December 31, 1986, of the above accomplishments, goals, and changes.

Sincerely,

Raymond D. Mapston
for
G. William Lamb
District Manager

Enclosure

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RANGELAND PROGRAM
SUMMARY
1987

Arizona Strip District

INTRODUCTION

In 1982, a Rangeland Program Summary Update (RPSU), was released to the public for both Resource Areas of the Arizona Strip District of the Bureau of Land Management (BLM). The Resource Areas are the Shivwits and the Vermillion.. In the 1982 summary update the subjects of consultation, decisions, monitoring, allotment management plans (AMP) and rangeland improvements were covered. Tables in the 1982 RPSU showed the total grazing preference, licensed use, initial adjustment and the percent change from the preference and licensed use as a result of the grazing decisions issued. Also shown was on which allotments monitoring was initiated.

In this RPSU, the Arizona Strip District will demonstrate with the data available what has happened since the 1982 RPSU. The subject matter will be grazing use levels, the number of AMPs, categorization, vegetation trend, utilization data, monitoring studies and a summing up of rangeland improvements.

There were 11 allotments with a 5-year phase-in of their grazing level reductions. The latest grazing levels for these allotments are shown in the Appendix I.

GRAZING USE LEVELS

Prior to the final decisions of 1980 and 1981 the Arizona Strip District had a total grazing preference of 238,344* animal unit months (AUM). The licensed use for the 5 years before issuing the decison was 177,026* AUMs. The new grazing level after the issuance of decisions was 182,670* AUMs. The total actual grazing use for 1985, the last year with data available, was 154,254** AUMs. This is 28,416 AUMs below authorized levels. This lower level is in large part a reflection of the current weak livestock market.

* Data from RPSU - 1982

** Annual Grazing Statistical Report of Section 3 Permits

ALLOTMENT MANAGEMENT PLANS (AMPs)

The Arizona Strip District has two types of AMPs. They are the intensive and the less intensive plans. The intensive plans involved grazing systems such as rest-rotation, Savory Grazing Method, deferred rotation, and best pasture systems. The intensive AMPs had cooperatively funded rangeland improvements planned for their allotments which were necessary to implement the grazing systems. The intensive system set a constraint of no higher than a 50% utilization on key forage species.

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The less intensive grazing systems allowed the rancher to operate as always but the forage species could not be utilized above an average of 45%. The rancher would and has financed range improvements.

The Arizona Strip has 56 implemented intensive AMPs involving 1,697,134 acres. There are 9 implemented less intensive AMPs involving 243,131 acres. There are 17 written AMPs not yet fully implemented. Twenty-four AMPs need to be written. The Arizona Strip has 3,124,000 acres of public land under its administration. Currently 45% of the Arizona Strip is under implemented intensive management and 8% under less intensive management. The remaining 47% will over the next 5 to 10 years be placed under intense and/or less intensive management.

In 1982, after the 1982 RPSU was completed, the Washington Office issued Instruction Memorandum No. 82-252 instructing field offices to place allotments into three categories in accordance to a criteria. The criteria were range conditions, resource conflicts, economic returns, etc. The allotments needing improvement the most were placed in "I" category or "Improvement." The allotments with few resource problems were placed in the "M" category or "Maintain." The pieces of small scattered parcels of public land which preclude intensive management effort, were placed in "C" or "Custodial."

As of 1986 the Arizona Strip District had the following:

AREA	CATEGORY I	CATEGORY M	CATEGORY C
Vermillion	100	4	11
Shivwits	52	7	5
Total Acreage	2,748,000	324,000	52,000

GRAZING SYSTEM COMPLIANCE

With 56 implemented - intensive - AMPs with grazing systems, there are 56 prescribed or agreed upon grazing systems operating on the Arizona Strip. Compliance checks are carried out throughout grazing seasons to observe whether grazing systems are followed. Are the grazing systems followed?

In 1983, 1984, 1985, and 1986 an independent grazing system survey was done outside normal compliance checking. For this survey "out of compliance" grazing systems are those where gates were found open to all pastures and cattle were not in a designated pasture but all pastures. Grazing systems in compliance were those where gates were closed to rested pastures and cattle were in a pasture dedicated for grazing use for the year.

In 1983, 22 systems out of the 24 observed were in compliance; in 1984, 25 out of 28 observed were in compliance; in 1985, 24 of the 28 observed were in compliance; in 1986, 30 of the 34 systems observed were in compliance.

As many of the out of compliance grazing systems through the 1983 to 1986 period were the same two operators every year, cooperative actions were taken and the two have come into compliance. Generally, the other out of compliance grazing systems occur sporadically due to drought causing water and feed shortage, forcing the rancher to break the system during part of a year.

The Arizona Strip continues and will continue to maintain a strong grazing system compliance program. Ranchers, in general, endorse the various rotation grazing systems as sound management.

MONITORING

Monitoring plays a significant role in range management on the Arizona Strip District. As explained in the 1982 RSPU, the District developed a monitoring plan in 1981 for monitoring the vegetation resource. The plan had public review. The District uses the Pace Frequency Method along with photographs for monitoring vegetation trend. The Grazed Class Method is used to monitor forage utilization. Actual use is turned in by ranchers for amount of livestock use on an allotment. Field counts are used to verify actual use. The district has established over 40 rain gauges to measure when, how much and where precipitaiton occurs. Currently 111 allotments (see Table) have monitoring studies. The 111 allotments have 405 key areas where forage utilization and vegetation trend are measured. There are another 83 key areas in exclosures, special studies, etc.

NUMBER OF ALLOTMENTS AND ACRES MONITORED

Office	Category I Allotments/ Acres	Category M Allotments/ Acres	Category C Allotments/ Acres	Unmonitored** Allotments/ Acres
Arizona Strip District	96* 2,748,817	11 324,000	4 41,242	12 10,758

* 152 allotments have been combined into 96 for AMP and monitoring purposes.

All "I" and "M" allotments were monitored. Some "C" allotments were monitored, where protested decisions occurred and studies were established to set stocking levels. Currently, there is some problem getting all "I" and "M" allotments monitored due to a manpower shortage.

As explained in the Vermillion and Shivwits Grazing Final Environmental Statements, the Rangeland Progarm Summary, and following updates, the vegetation trend studies are correlated with the precipitation, actual use, and forage utilization studies. The correlation evaluations establishes the effect of livestock grazing and precipitation on vegetation. From these evaluation studies, management decisions can be made.

Allotments are categorized and recategorized over time through these studies and evaluations. When, for example, an "I" allotment shows that resource conflict and conditions have improved and stabilized, it will be recategorized to "M". A "M" allotment could be moved up to "I" if resource conflicts occur and conditions deterioriate. All evaluations receive interdisciplinary and interested public review prior to recategorization.

The number of allotments and the acreages involved in categorization and recategorization are published annually in the the Public Land Statistics. Any changes in categorization will be reflected in those annual allotment numbers and acreage figures. Inquiries on which allotments are involved can be directed to the Arizona Strip District.

RANGELAND VEGETATION TREND (See also Appendix II)

Rangeland Vegetation Trend is determined through the Pace Frequency Method wherein 200 plot transects are done in the same place every three to five years. Several parameters are observed in the transects from a frequency standpoint. They are: occurrence of plant species. frequency of bareground, dead plant litter and live plant species. The method over time measures significant changes in the above parameters. Changes in plant species is the major item affected by management and precipitation. Plant species frequency and changes to that frequency are subject of AMP objectives.

The vegetation trend on the Arizona Strip for the last five years is available on 334 of the 405 key areas. The data shows that 143 key areas show upward trend, 152 show static trend, and 39 show a down trend in key plant species.

The utilization range on a pasture basis is shown in Appendix II. Allotments with utilization on anything over a 50% average was exceeded at least once on 36 of the 98 allotments shown in Appendix II. However, overall the average utilization is low and dropping. High utilization (over 50%) will occur for various reasons in livestock management, but this too is being brought under tighter management. Problem areas are identified and the problem solved.

The precipitation data from the over 40 rain gauges over the last 5 years on the Arizona Strip is a large quantity of data and beyond the scope of this update to summarize. However, refer to Appendix III for an example of how the data is displayed on a yearly basis and is used in allotment evaluations. Overall, the 1982-83 period was wetter than normal, but the other years showed normal occurrence of wet and dry cycles.

RANGELAND LAND IMPROVEMENTS

Necessary to the accomplishment of goals in range management is the rangeland improvements to put grazing systems and proper range management in place. Since 1980 approximately 1.7 million dollars has been spent on:

Water developments	49 each
Pipelines	36 miles
Fences	82 miles
Land Treatment	14,000 acres

CONCLUSION

Five years is a short time in dealing with range management and its results in arid to semi-arid environs. However, this much can be said: the grazing use levels are much lower than five years ago; there are twice as many grazing systems operating on the Arizona Strip as five years ago; and the grazing systems are being followed by the majority of the ranchers.

The Arizona Strip District is actively monitoring 111 allotments. These monitored allotments represent 3.10 million acres of the 3.12 million public land acres on the Arizona Strip.

The monitoring process serves and will continue to serve us in the categorization and management of the BLM's allotments.

The monitoring studies demonstrate that vegetation trend is mostly static to upward with only a small number showing down trend. The utilization studies on the forage species are overall being used at below 50% utilization, which will allow improvement in plant species composition.

Range conditions are not discussed in this update. The reason for this is that currently the Arizona Strip District is in the process of doing the Ecological Site Inventory. The data from the inventory will be displayed in Public Land Statistics as it becomes available.

FUTURE EFFORTS

Short term- The Arizona Strip District, as it now has enough monitoring data on some allotments, will begin to recategorize allotments in accordance with the monitoring data.

Long term- The District will continue to implement AMPs in an economical and effective manner as funds permit. The District monitoring effort will continue to insure proper range management is carried in the best possible manner.

APPENDIX I

Allotments With Five Year Phase in Reduction

Vermillion Resource Area

Allotment	Grazing Preference (AUMs)	1986 Adjusted Level (AUMs)
Grama Spring	466	360
Gulch	210	143
Hacks	423	247

SHIVWITS RESOURCE AREA

Allotment	Grazing Preference (AUMs)	1986 Adjusted Level (AUMs)
Sullivan Tank	974	456
Grassie Mountain	10,174	4,946
Littlefield Community	4,301	2,120
Jump Canyon	2,286	1,862
Last Chance	955	609
Imlay	1,380	734
Mesquite Community	2,700	2,547
Mosby	109	37

APPENDIX II
Shivwits Resource Area
Key Species Trend at Key Areas as of 1986

AMP	UP*	STATIC*	DOWN*	*RANGE OF AVERAGE PASTURE UTILIZATION
Beaver Dam	4	0	0	11 to 47%
Big Spring	0	--	--	41%
Black Rock	3	--	--	16 to 55%
Blake Pond	3	1	0	32 to 70%
Cedar Pocket	0	--	--	17 to 34%
Cedar Wash	1	--	--	15 to 26%
Clay Spring	3	4	1	11 to 70%
Cottonwood	--	2	--	22 to 50%
Diamond Butte	2	1	--	10 to 46%
Duncan Tank	--	1	1	26 to 50%
Grassie Mountain	5	3	0	No use
Highway	--	1	--	11 to 29%
Imlay	2	1	--	16 to 45%
Ivanpah	2	1	--	11 to 60%
Jackson Tank	1	1	--	16 to 40%
Jump Canyon	4	3	--	17 to 56%
Lambing	4	6	0	28 to 64%
Last Chance	--	2	--	17 to 21%
Link Spring	1	--	--	11 to 59%
Little Tank	2	0	0	20 to 64%
Little Wolf	0	3	0	17 to 55%
Littlefield Community	--	7	--	16 to 68%
Lizard	1	--	--	30 to 40%
Lower Hurricane	7	1	0	25 to 68%
Mainstreet	5	1	1	6 to 41%
Mesquite Community	0	3	2 (step-toe)	19 to 62%
Mine Valley	--	2	--	7 to 40%
Mormon Well	1	1	0	13 to 35%
Mosby-Nay	0	3	0	12 to 50%
Mount Trumbull	0	2	3	19 to 50%
Mud & Cane	0	3	0	25 to 59%
Mule Canyon	2	0	2	19 to 48%
Mustang Spring	1	2	0	40 to 66%
Pakoon	2	1	0	11 to 30%
Pakoon Spring	0	3	0	19 to 58%
Parashaunt	3	--	0	13 to 44%
Pa's Pocket	0	2	0	18 to 49%
Penn's Well	0	2	0	18 to 39%
Poverty	5	1	--	8 to 49%
Purgatory	0	1	0	19 to 39%
Quail Canyon	0	2	0	13 to 45%
Sullivan Canyon	1	--	--	31 to 50%
Sullivan Tank	3	1	0	10 to 39%
Sunshine	1	2	0	18 to 43%
Tassi	3	2	0	19 to 47%
Toquer Tank	2	0	1	8 to 23%
White Rock	0	3	0	24 to 48%
Wolfhole Canyon	1	0	0	3 to 49%
Wolfhole Lake	0	0	0	21 to 37%
	75	75	11	

* Utilization range on allotment for last five years of key species
* Static--10% increase or decrease from origin
* Down--Greater than 10% decrease from origin of key species
* Up--Greater than 10% increase in key species from origin

Not all allotments are shown as they lack at least two readings on trend studies to demonstrate trend.

Note: Each number in columns above shows how many key areas are up, static, or down per allotment.

APPENDIX II
Shivwits Resource Area
Key Species Trend at Key Areas as of 1986

AMP	UP*	STATIC*	DOWN*	RANGE OF AVERAGE PASTURE UTIL.*
Beaver Dam	4	0	0	11 to 47%
Big Spring	0	--	--	41%
Black Rock	3	--	--	16 to 55%
Blake Pond	3	1	0	32 to 70%
Cedar Pocket	0	--	--	17 to 34%
Cedar Wash	1	--	--	15 to 26%
Clay Spring	3	4	1	11 to 70%
Cottonwood	--	2	--	22 to 50%
Diamond Butte	2	1	--	10 to 46%
Duncan Tank	--	1	1	26 to 50%
Grassie Mountain	5	3	0	No use
Highway	--	1	--	11 to 29%
Imlay	2	1	--	16 to 45%
Ivanpah	2	1	--	11 to 60%
Jackson Tank	1	1	--	16 to 40%
Jump Canyon	4	3	--	17 to 56%
Lambing	4	6	0	28 to 64%
Last Chance	--	2	--	17 to 21%
Link Spring	1	--	--	11 to 59%
Little Tank	2	0	0	20 to 64%
Little Wolf	0	3	0	17 to 55%
Littlefield Community	--	7	--	16 to 68%
Lizard	1	--	--	30 to 40%
Lower Hurricane	7	1	0	25 to 68%
Mainstreet	5	1	1	6 to 41%
Mesquite Community	0	3	2 (step-toe)	19 to 62%
Mine Valley	--	2	--	7 to 40%
Mormon Well	1	1	0	13 to 35%
Mosby-Nay	0	3	0	12 to 50%
Mount Trumbull	0	2	3	19 to 50%
Mud & Cane	0	3	0	25 to 59%
Mule Canyon	2	0	2	19 to 48%
Mustang Spring	1	2	0	40 to 66%
Pakoon	2	1	0	11 to 30%
Pakoon Spring	0	3	0	19 to 58%
Parashaunt	3	--	0	13 to 44%
Pa's Pocket	0	2	0	18 to 49%
Penn's Well	0	2	0	18 to 39%
Poverty	5	1	--	8 to 49%
Purgatory	0	1	0	19 to 39%
Quail Canyon	0	2	0	13 to 45%
Sullivan Canyon	1	--	--	31 to 50%
Sullivan Tank	3	1	0	10 to 39%
Sunshine	1	2	0	18 to 43%
Tassi	3	2	0	19 to 47%
Toquer Tank	2	0	1	8 to 23%
White Rock	0	3	0	24 to 48%
Wolfhole Canyon	1	0	0	3 to 49%
Wolfhole Lake	0	0	0	21 to 37%
	75	75	11	

* Utilization range on allotment for last five years of key species
* Static--10% increase or decrease from origin
* Down--Greater than 10% decrease from origin of key species
* Up--Greater than 10% increase in key species from origin

Not all allotments are shown as they lack at least two readings on trend studies to demonstrate trend.

Note: Each number in columns above shows how many key areas are up, static, or down per allotment.

APPENDIX III

Selected Examples From Rain Gauge Data From
Current Year Summary Precipitation Report
Arizona Strip District
Vermillion RA, 1986

RAIN GAUGE NAME	#	YEAR	FALL	WINT	SPRI	SUMM	ANN TOTAL	FALL AVE.	WINT AVE.	SPRI AVE.	SUMM AVE.	ANN AVE.	%FALL AVE.	%WINT AVE.	%SPRI AVE.	%SUMM AVE.	%ANNUAL AVE.
MILLER	01	85-86	4.20	0.76	2.08	7.33	14.37	2.36	3.09	2.70	3.60	11.75	177.97	24.60	77.04	203.61	122.30
WOOLLEY	04	85-86	1.08	0.25	1.32	3.85	6.50	1.60	1.56	1.43	3.07	7.65	67.50	16.03	92.31	125.41	84.97
CLAYHOLE EXCLOSURE	14	85-86	2.67	2.56	1.00	4.94	11.17	1.59	2.34	2.09	3.33	9.35	167.92	109.40	47.85	148.35	119.47
GLAZIER DAM	24	85-86	2.58	1.32	3.44	2.91	10.25	1.90	2.50	2.48	3.53	10.41	135.79	52.80	138.71	82.44	98.46

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